UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/075,916	02/14/2002	Matthias Weiss	A34942	1714

			EXAMINER
21003	7590	08/02/2004	TSAI, HENRY

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ART UNIT	PAPER NUMBER
2183	

DATE MAILED: 08/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _8/12/02 and 5/28/02_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-9_ is/are pending in the application.

    4a) Of the above claim(s) _6 and 7_ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-5, 8 and 9_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on ___ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _5/14/02_.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____ .

DETAILED ACTION

Specification

1.   The following guidelines illustrate the preferred layout

for the specification of a utility application.   These

guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a
utility application should include the following sections in
order.   Each of the lettered items should appear in upper case,
without underlining or bold type, as a section heading.   If no
text follows the section heading, the phrase "Not Applicable"
should follow the section heading:

   (a) TITLE OF THE INVENTION.
   (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
   (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR
        DEVELOPMENT.
   (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A
        COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05.
        Computer program listings (37 CFR 1.96(c)), "Sequence
        Listings" (37 CFR 1.821(c)), and tables having more
        than 50 pages of text are permitted to be submitted on
        compact discs.) or
        REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP §
        608.05(a).   "Microfiche Appendices" were accepted by
        the Office until March 1, 2001.)
   (e) BACKGROUND OF THE INVENTION.
        (1) Field of the Invention.
        (2) Description of Related Art including information
        disclosed under 37 CFR 1.97 and 1.98.
   (f) BRIEF SUMMARY OF THE INVENTION.

    (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE
        DRAWING(S).
    (h) DETAILED DESCRIPTION OF THE INVENTION.
    (i) CLAIM OR CLAIMS (commencing on a separate sheet).
    (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate
        sheet).
    (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-
        1.825. A "Sequence Listing" is required on paper if
        the application discloses a nucleotide or amino acid
        sequence as defined in 37 CFR 1.821(a) and if the
        required "Sequence Listing" is not submitted as an
        electronic document on compact disc).

Claim Objections

2. Claims 6, and 7 are objected to under 37 CFR 1.75(c) as
being in improper form because a multiple dependent claim cannot
depend from any other multiple dependent claim. See MPEP
§ 608.01(n). Accordingly, the claims 6 and 7 have not been
further treated on the merits.

3. Claims 1-5, and 9 are objected to because of the following
informalities:

in claim 1, lines 12-13, and lines 19-20, it is suggested
to change "-determined by a reading row number-" to

", determined by a reading row number, "; and

change "-effected in this way-" to

", determined by a reading row number, ". Similar problems

exist in the other claim 5;

in claim 5, line 7, the meaning of "the instruction word

memory page to be called" is unclear. Therein, it is suggested

to change "called" to -selected-. Similar problems exist in the

other claim 5, lines 27-28; and

in claim 9, line 2, "a block length register a read pointer

register" should read -a block length register, a read pointer

register-.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4.   The following is a quotation of the second paragraph of 35

U.S.C. 112:

> The specification shall conclude with one or more claims particularly
> pointing out and distinctly claiming the subject matter which the applicant
> regards as his invention.

5.   Claims 1-5, 8 and 9 are rejected under 35 U.S.C. 112,

second paragraph, as being indefinite for failing to

particularly point out and distinctly claim the subject matter

which applicant regards as the invention.

In claim 1, lines 19-20, it is not clear what is meant by "after generation --effected in this way-- of an instruction word" since which way is referred to by "this way" was not defined. Similar problems exist in the other claim 5.

In claim 8, lines 3-4, it is not clear what is meant by "having an instruction word memory assigned to these functional units"; and lines 11-12, it is not clear what is meant by "the instruction word is assigned a generation unit" since the definition of "assigned" is unclear. Note "assigned" is not a verb for establishing a structural relationship between two elements. Similar problems exist in the other claim 9, lines 6-7.

In claim 9, line 8, the term of "ring countering properties" lacks proper antecedent basis since it was not described or defined previously.

Applicant is required to review the claims and correct all language which does not comply with 35 U.S.C. § 112, second paragraph.

Claim Rejections - 35 USC § 102

6.   The following is a quotation of the appropriate paragraphs

of 35 U.S.C. 102 that form the basis for the rejections under

this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this
or a foreign country or in public use or on sale in this country, more than one
year prior to the date of application for patent in the United States.

7.   Claim 8 is rejected under 35 U.S.C. 102(b) as being

anticipated by Desal et al. (U.S. Patent No. 5,347,638)

(hereafter referred to as Desal et al.'638).

Referring to claim 8, Desal et al.'638 discloses as claimed

arrangement for the generation of instruction words (inside

register file 202, see Fig. 3) for driving functional units

(certainly existing in the Desal et al.'638's system for data

operations) in a processor having functional units, having an

instruction word memory (such as the instruction queue of the

Desal et al.'638's system) assigned to these functional units,

and having an instruction word buffer (register file 202, see

Fig. 3) for storing already generated instruction words (the

words after decoding) having a width (14 bits, see col. 6, lines

32-34) which is at least equal to the bit width (14 bits, see

col. 6, lines 32-34) of the instruction word, the instruction

word buffer (<u>register file 202, see Fig. 3</u>) comprising a memory

with random or fixed-programmed row-by-row access, characterized

in that the instruction word memory (<u>such as the instruction</u>

<u>queue of the Desal et al.'638's system</u>) is assigned a generation

unit (<u>such as a decoder of the Desal et al.'638's system</u>).

Claim Rejections - 35 USC § 103

8.   The following is a quotation of 35 U.S.C. 103(a) which

forms the basis for all obviousness rejections set forth in this

Office action:

> (a) A patent may not be obtained though the invention is not
> identically disclosed or described as set forth in section 102 of this
> title, if the differences between the subject matter sought to be
> patented and the prior art are such that the subject matter as a whole
> would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the
> invention was made.

9.   Claim 9 is rejected under 35 U.S.C. 103(a) as being

unpatentable over Desal et al. (U.S. Patent No. 5,347,638)

(hereafter referred to as Desal et al.'638) in view of Miller

(U.S. Patent No. 5,079,639) (hereafter referred to as

Miller'639).

As to claim 9, Desal et al.'638 also discloses: a read

pointer register (R. pointer register 280, see Fig. 3) and a

write pointer register (W. pointer register 270, see Fig. 3) are

arranged in the generation unit (such as a decoder of the Desal

et al.'638's system).

Desal et al.'638 discloses the claimed invention except

for: a block length register, the read pointer register being

assigned a read pointer up/down counter and the write pointer

register being assigned a write pointer up/down counter, whose

ring counting properties are determined by the content of the

block length register.

Miller'639 discloses a system comprising a block length

register (the register inside RAM and connected with counter 216

by bus 220, see Fig. 4, see also col.5, lines 29-31), the read

pointer register (212 or 228, see Fig. 4) being assigned a read

pointer up/down counter (216 see Fig. 4) and the write pointer

register (286, see Fig. 5) being assigned a write pointer
up/down counter (266, see Fig. 4), whose ring counting
properties (the counter values are broadly and reasonably
interpreted as the ring counting properties) are determined by
the content (such as the bits or signals outputted from RAM to
affect the counters 266 and 216, see Figs. 4 and 5) of the block
length register (the register inside RAM and connected with
counter 216 by bus 220, see Fig. 4, see also col.5, lines 29-
31).

It would have been obvious to one having ordinary skill in
the art at the time the invention was made to modify Desal et
al.'638's system to comprise: a block length register, the read
pointer register being assigned a read pointer up/down counter
and the write pointer register being assigned a write pointer
up/down counter, whose ring counting properties are determined
by the content of the block length register, as taught by
Miller'639, in order to randomly read or write the instruction
word buffer for the Desal et al.'638's system (see col. 13,
claim 3 and col. 14, claim 4).

Allowable Subject Matter

9.   Claims 1-5 would be allowable if rewritten or amended to
overcome the rejection(s) under 35 U.S.C. 112, second paragraph,
and the objections set forth in this Office action.

10.   The following is a statement of reasons for the indication
of allowable subject matter: Desal et al.'638 and Miller'639,
the closest references, and the other prior art do not teach or
fairly suggest: at least, the program words comprising the
fractionation such as the width of an instruction word part from
a program code for controlling the generation of instruction
words in combination with all of the other limitations of claims
1 and 5.   Besides, the combination is not obvious.

Response to Amendment

10.   Note Applicant's amendment to claims 10, 15, and 19 mailed
8/12/02 are not entered since the original claims (claims 1-9)
do not include claims 10, 15, and 19.

Conclusion

11.   The prior art made of record and not relied upon is
considered pertinent to applicant's disclosure wherein

Sindalovsky'265 teaches using write pointer register and read

pointer register for facilitating access a memory device; and

Simpson discloses a FIFO memory system using write pointer

register 14 and read pointer register 16 for accessing the main

memory RAM.

Contact Information

12.   Any inquiry concerning this communication or earlier

communications from the examiner should be directed to Dr. Henry

Tsai whose telephone number is (703) 308-7600. The examiner can

normally be reached on Monday-Thursday from 8:00 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful,

the examiner supervisor, Eddie Chan, can be reached on (703)

305-9712. Any inquiry of a general nature or relating to the

status of this application or proceeding should be directed to

the **TC 2100 receptionist whose telephone number is (703) 305-

3900.**

13.   In order to reduce pendency and avoid potential delays,

Group 2100 is encouraging FAXing of responses to Office actions

directly into **the Group at fax number:** 703-872-9306.

This practice may be used for filing papers not requiring a fee.

It may also be used for filing papers which require a fee by

applicants who authorize charges to a PTO deposit account.

Please identify the examiner and art unit at the top of your

cover sheet. Papers submitted via FAX into Group 2100 will be

promptly forward to the examiner.

HENRY W. H. TSAI
PRIMARY EXAMINER

~~June 29, 2004~~
July 26, 2004